

## PATENT COOPERATION TREATY

11/20/05

PCT

**NOTIFICATION CONCERNING  
THE FILING OF AMENDMENTS OF THE CLAIMS**  
(PCT Administrative Instructions, Section 417)

**Date of mailing**  
(day/month/year) 07 June 2005 (07.06.2005)

**From the INTERNATIONAL BUREAU****To:**

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**Applicant's or agent's file reference**  
PCT951

**IMPORTANT NOTIFICATION**

**International application No.**  
PCT/JP2004/015269

**International filing date**  
(day/month/year) 15 October 2004 (15.10.2004)

**Applicant**  
K.K. MURAKOSHI SEIKOH et al

1. The applicant is hereby notified that amendments to the claims under Article 19 were received by the International Bureau on:

11 May 2005 (11.05.2005)

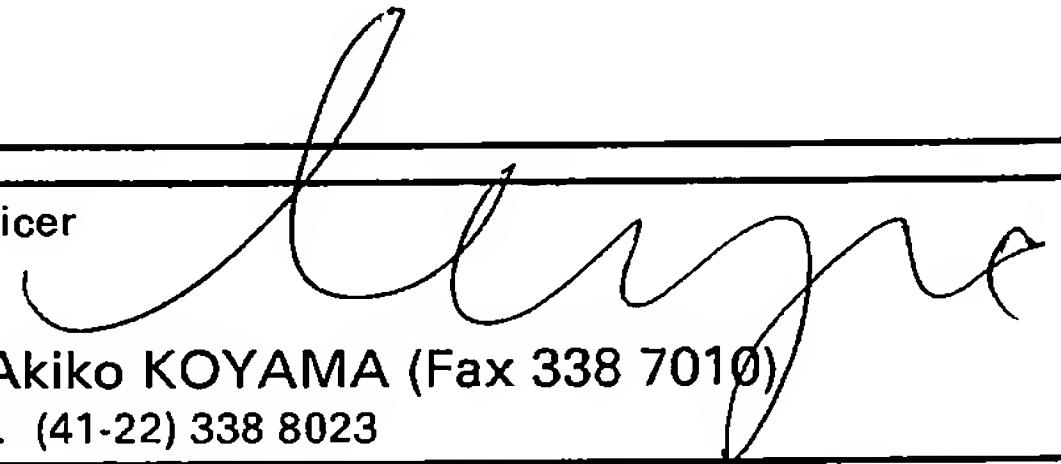
2. This date is within the time limit under Rule 46.1.

Consequently, the international publication of the international application will contain the amended claims according to Rule 48.2(f), (h) and (i).

3. The applicant is reminded that the international application (description, claims and drawings) may be amended during the international preliminary examination under Chapter II, according to Article 34, and in any case, before each of the designated Offices, according to Article 28 and Rule 52, or before each of the elected Offices, according to Article 41 and Rule 78.

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Claims

1. A buffer characterized by comprising:
  - a first member,
  - a case body relatively movable with respect to the first member,
  - a slider provided in the case body so as to be slidable in a longitudinal direction of the case body, and
  - a buffering member rotatably attached to the slider;

wherein

the buffering member is rotated through abutment with the first member, has an engagement stepped portion or a cam projecting portion for directly or indirectly pressing the case body or a member fixed to the case body, and moves along with movement of the first member or the case body while retaining the pressing state caused by the engagement stepped portion or the cam projecting portion so as to buffer relative movement of the first member and the case body.
2. The buffer as described in claim 1 characterized in that the engagement stepped portion or the cam projecting portion presses the case body or the member fixed to the case body indirectly via a pressing member.
3. The buffer as described in claim 1 or 2 characterized in that the buffering member presses a brake plate fixed to the case body.
4. The buffer as described in claim 3 characterized in that

the position of the brake plate is adjustable in a width direction of the case body.

5. The buffer as described in claim 3 or 4 characterized in that a flat abutting surface to be brought into sliding contact with one side surface of the brake plate is formed on the slider.

6. The buffer as described in any one of claims 1 to 5 characterized by comprising:

a rotary damper fixed to the slider, a pinion gear fixed to a rotation axis of the rotary damper, and

a rack fixed to the case body; wherein the pinion gear and the rack are meshed with each other.

7. The buffer as described in any one of claims 1 to 5 characterized by comprising:

a rack fixed to the slider,

a rotary damper fixed to the case body, and

a pinion gear fixed to a rotation axis of the rotary damper; wherein

the pinion gear and the rack are meshed with each other.

8. The buffer as described in any one of claims 1 to 7 characterized by comprising an elastic means for moving the slider between the slider and the case body.

9. The buffer as described in any one of claims 1 to 8 characterized in that the buffering member has a retaining recessed portion for retaining the first member, and is moved along with movement of the first member or the case body via

the retaining recessed portion.

10. The buffer as described in any one of claims 1 to 5 characterized in that the buffering member has a magnet, the first member is formed of a magnetic body, and the magnet can attract and retain the first member.

Statement under Article 19 (1)

Claim 1 clarified that:

a slider is provided so as to be slidable in a longitudinal direction of a case body, and a buffering member is rotatably attached to the slider; wherein

the buffering member is rotated through abutment with the first member, has an engagement stepped portion or a cam projecting portion for directly or indirectly pressing the case body or a member fixed to the case body,

and moves along with movement of the first member or the case body while retaining the pressing state caused by the engagement stepped portion or the cam projecting portion with respect to the case body or the member fixed to the case body.

Thus, when a direct or indirect pressing force is applied to the case body or the member fixed to the case body by the engagement stepped portion or the cam projecting portion of the buffering member, sliding friction is generated, and a braking action is generated, thereby buffering the relative movement of the first member and the case body.

In FIGs. 8 to 10 of Japanese Patent Application Laid-Open (kokai) No. H11-264270 which is a reference cited in the international search report, a locking body 19 is rotatably attached to a holder 28 which is housed to be movable in the longitudinal direction of a main body 8, and the locking body 19 is rotated through abutment with a hook portion 61 of a hook

body 59 of an engagement means 9; however, the locking body does not have any stepped portion or cam projecting portion for directly or indirectly pressing the main body 8 or a member fixed to the main body. Therefore, any braking force caused by direct or indirect sliding friction is not applied between the locking body 19 and the main body 8.

Moreover, in FIG. 12, a rack body 70 is coupled to the holder 28, wherein when the holder 28 is to move backward, a cam 75 which is always in contact with the lower surface of the rack body 70 rotates clockwise so as to cause a rack portion 70a to be meshed with a pinion 71, thereby performing braking. This is completely different from the constitution of claim 1 of the present application in which the buffering member rotatably attached to the slider is rotated through abutment with the first member, and the member directly or indirectly presses the case body or the member fixed to the case body, thereby generating a braking force.